



**Distribution A - Approved for Public Release; Distribution Unlimited**

*U.S. Army Space and Missile Defense Command/  
Army Forces Strategic Command*



# **USASMDC/ARSTRAT**

## **Geospatial-Intelligence (GEOINT) Division**

**U.S. Army Space and Missile Defense Command/  
U.S. Army Forces Strategic Command  
Colorado Springs, CO**

*"Secure the High  
Ground"*

*"The Sun Never Sets on  
USASMDC/ARSTRAT"*

**Distribution A - Approved for Public Release; Distribution Unlimited**



## **GEOINT and AGI**

### **Geospatial Intelligence (GEOINT)**

The exploitation and analysis of **imagery and geospatial information** to describe, assess, and visually depict **physical features** and geographically referenced **activities on the earth.**

### **Advanced Geospatial Intelligence (AGI)**

...technical, geospatial, and intelligence information derived through interpretation or analysis using advanced processing of all data collected by **imagery or imagery-related collection systems.** AGI, previously known as Imagery Derived MASINT, includes all types of information technically derived from the processing, exploitation, and **non-literal analysis** (to include **integration or fusion**) of spectral, spatial, temporal, **radiometric, phase history, and polarimetric data.**



*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



## **Bottom Line Up Front**

- **Member of Army's federation of AGI units ("Nodes") supporting COCOMs and joint ground forces**
- **Assigned USSTRATCOM, USNORTHCOM, and USTRANSCOM**
- **Support USASMDC/ARSTRAT, COCOMs, Army, and NGA with AGI technical exploration and proponency**

*"Secure the High  
Ground"*

*"The Sun Never Sets on  
USASMDC/ARSTRAT"*



**Distribution A - Approved for Public Release; Distribution**

*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*

**Unlimited**



# Army MASINT/AGI Federation

**EUCOM**

**66<sup>th</sup>  
MI  
GRP**

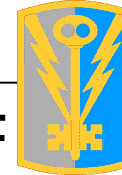


**CENTCOM  
SOCOM**

**513<sup>th</sup>  
MI BDE**



**USFK  
501<sup>st</sup>  
MI  
BDE**



**STRATCOM  
NORTHCOM  
TRANSCOM**



**SMDC/ARSTR  
AT  
AGI Node**

**SOUTHCOM**

**"470<sup>th</sup>  
" MI  
GRP**



**PACOM  
500<sup>th</sup>  
MI  
GRP**



**National Nodes and  
Scientific/Technical  
Intelligence Centers**

**Connected via Army AGI  
Web Portal on SIPRNET and  
JWICS -**

**GEOINT Enterprise TPED  
Services (GETS)**

*"Secure the High  
Ground"*

*"The Sun Never Sets on  
USASMD/ARSTRAT"*

**Distribution A - Approved for Public Release; Distribution**



*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



## **Mission Statement**

**Produce responsive, tailored, and innovative Advanced Geospatial Intelligence (AGI) in support of NORTHCOM, TRANSCOM, STRATCOM, SMDC/ARSTRAT, other DoD forces, and designated civil agencies. Explore new technologies and applications and serve as proponent for SMDC/ARSTRAT and supported COCOM MASINT/AGI requirements.**



*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



## **GEOINT Division Evolution**

- **CG - DA G2 MOA Amend 1**

- Full service AGI producer
- Assigned 2<sup>nd</sup> COCOM (NORTHCOM)

**USASMDC/ARSTRAT  
GEOINT  
DIVISION (Today)**

**SMDC/ARSTRAT  
MASINT/AGI  
Node (by Aug 06)**

**STRATCOM  
MASINT/ AGI  
Node (Jul 2004)**

- Assigned 3<sup>rd</sup> COCOM (TRANSCOM - Mar 07)

**Spectral Ops  
Resource  
Center (SORC)  
(2000)**

- **CG - DA G2 MOA**

- Transferred to ARSTRAT G2
- Joined Army AGI Federation
- Spectral producer
- Funded by NGA
- Assigned STRATCOM

*"Secure the High Ground"*

*"The Sun Never Sets on  
USASMDC/ARSTRAT"*



## **Key Capabilities**

- **Advanced (and basic) GEOINT production**
  - *multi-spectral*
  - *hyperspectral*
  - *radar*
  - *GIS*
  - *LIDAR*
  - *polarimetrics*
  - *OPIR Analysis*
- **Commercial/civil imagery technologies**
- **Defense Support to Civil Authority (DSCA) operations**
- **Missiles/strategic targets**
- **Garrison and deployed support**
- **MASINT/AGI reinforcement from Army Federation**
- **Alternate Site for Army's AGI dissemination web portal**





*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



## **Mobile Processing, Exploitation and Dissemination System (MoPED)**

**G-2/AGI deployable communications and AGI analytical**

### **CAPABILITIES**

- Self-powered, environmentally controlled
- GBS receive system enables receipt of imagery at 23.5 Mbs
- SATCOM Communications Device (1Mbs uplink - 4Mbs downlink)
- Server with 28TB of storage
  - Homeland Security Infrastructure Program (HSIP)
  - Coastal LIDAR, Radarsat, Worldview, GeoEye imagery
- Four high performance laptop workstations and plotter
- DRASH tent for expanded work



**"The Sun Never Sets on  
USASMD/ARSTRAT"**





## TacSat-3 Overview

**Launch Date:**

19 MAY 2009

**Transition to AFSPC:**

19 May 2010

**Transition to  
USSTRATCOM:**

18 Jun 2010

**Launch Vehicle:**

Minotaur I

**Launch Site:**

Wallops Island, VA

**Initial Orbit:**

460 km altitude, 40.5° incl.

*"Secure the High  
Ground"*

*"The Sun Never Sets on  
USASMDC/ARSTRAT"*

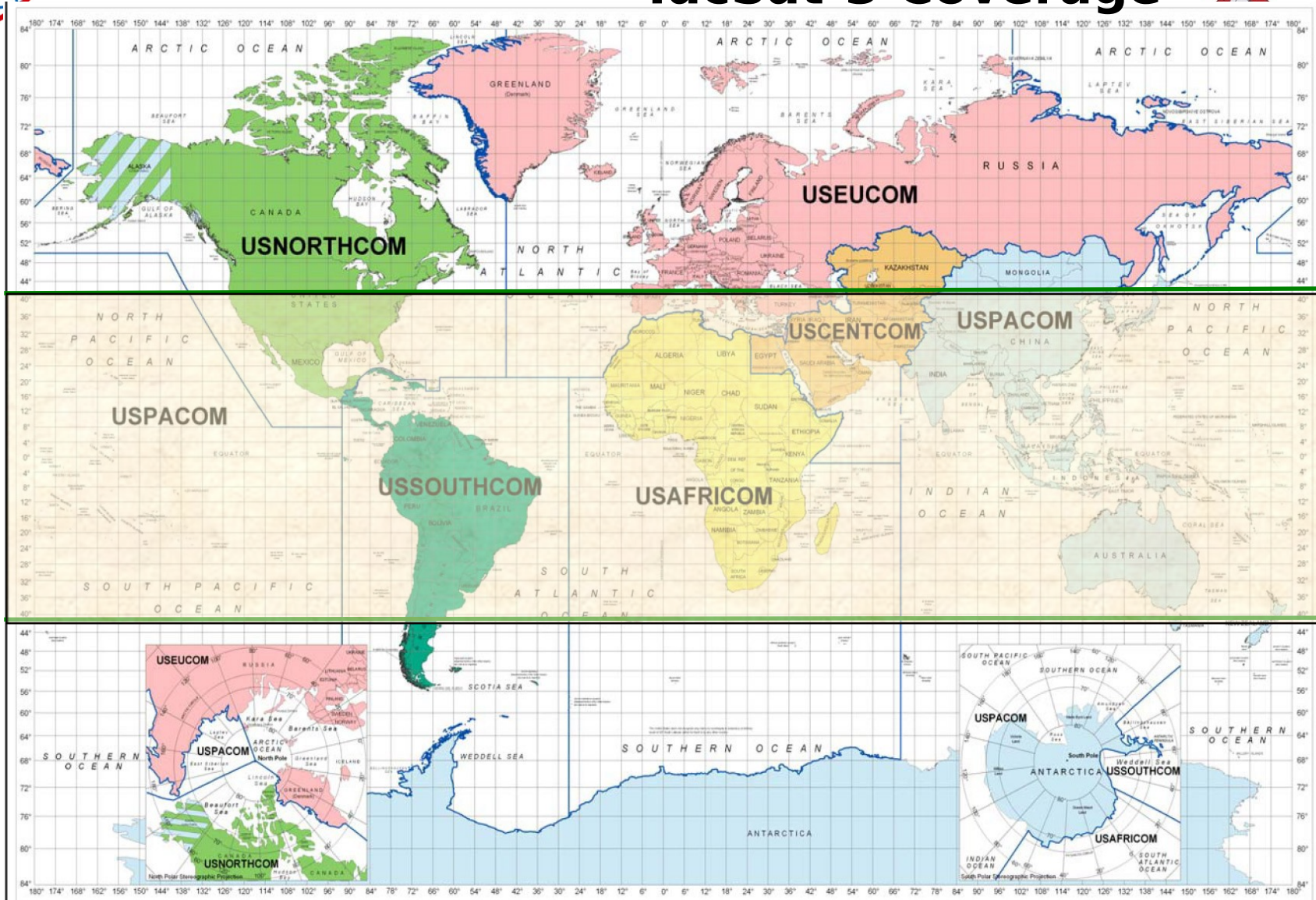


**Distribution A - Approved for Public Release; Distribution Unlimited**

**U.S. Army Space and Missile Defense Command,  
Army Forces Strategic Command**



# TacSat-3 Coverage



**Ground**

**USASMDC/AFSIRAI**

**Distribution A - Approved for Public Release; Distribution Unlimited**





*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



# Application of TacSat-3 (ARTEMIS) Capabilities

## (Advanced Responsive Tactically Effective Militarily Imaging Spectrometer) Capabilities Addressed

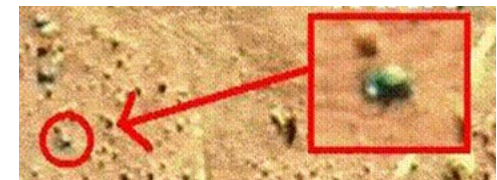
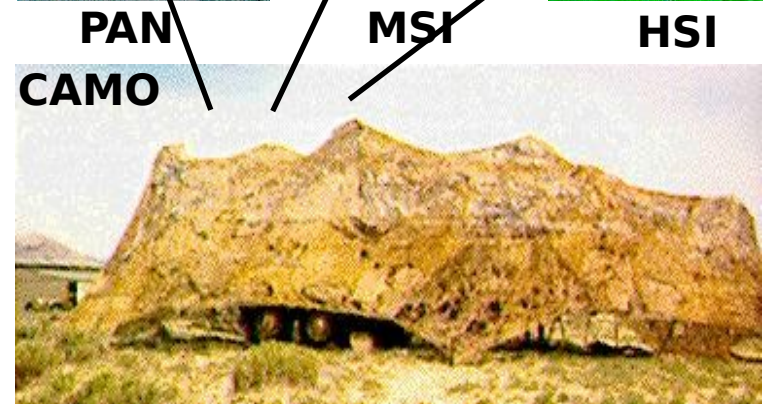
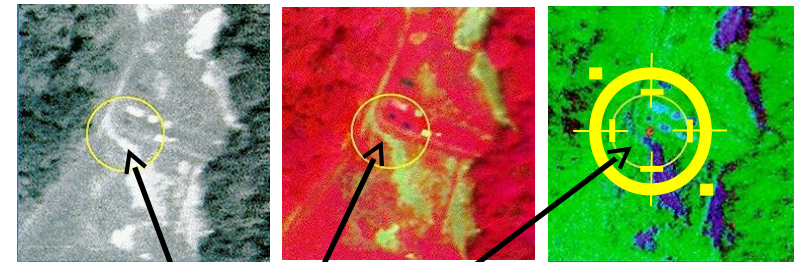
- Intelligence Preparation of the Battlefield (IPB)
- Planning/Improved Trafficability
- Material Detection & Geo-Location
- Camouflage Detection & Possible Defeat
- Disturbed Earth Identification
- Battle Damage Assessment (BDA)

## Collection/Operational Concept of Operations (CONOPS)

- Denied area access
- Collect Hyper-Spectral Imagery (HSI) & PAN (Panchromatic)/High Resolution Imagery (HRI)
- Theater Commander Tasked

Collect to product distribution w/in 24hrs  
Web-based tasking and product distribution

Legend  
PAN = Panchromatic  
MSI = Multispectral  
Imagery  
HSI = Hyperspectral  
Imagery



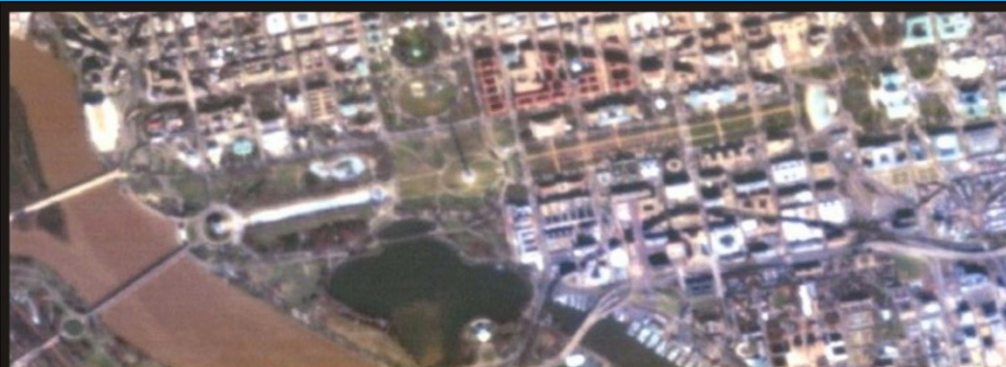
**"The Sun Never Sets on  
USASMD/ARSTRAT"**



*U.S. Army Space and Missile Defense Command  
Army Forces Strategic Command*



## TacSat-3 Imagery



U.S. Air Force TacSat-3/ARTEMIS image of the National Mall, Washington, D.C., modified for public release using three of 400+ spectral bands to create a rendering from detailed spectral data.



U.S. Air Force TacSat-3/ARTEMIS image of Kilauea Volcano, Hawaii, modified for public release using three of 400+ spectral bands to create a rendering from detailed spectral data.